

WE CLAIM AS OUR INVENTION:

1. A method for controlling the tube current in an X-ray tube for producing an image by computed tomography, comprising the steps of:

obtaining a single topogram of an examination subject on an examination table;

evaluating said topogram and determining therefrom a maximum attenuation in projection direction of a CT image of the examination subject to be subsequently obtained, as a function of a position of the table; storing said maximum attenuation as a data vector;

determining an orthogonal extent of the examination subject from said topogram using a threshold value;

determining an orthogonal attenuation of the examination subject as a product of said orthogonal extension and a stored organ-specific linear attenuation coefficient; and

subsequently obtaining said tomogram by irradiating the examination subject with X-rays from an X-ray tube supplied with a tube current, and modulating said tube current dependent on said orthogonal patient attenuation.